

In the claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (canceled).

2. (new) An automated method for designing an integrated circuit layout with a computer, comprising the steps of:

- (a) selecting a plurality of cells that are intended to be used in the integrated circuit layout;
- (b) determining initial delay values associated with the cells prior to determining an initial placement of the cells; and
- (c) performing an initial placement of the cells.

3. (new) The automated method of claim 2 further comprising:

determining an initial size or area of the cells in response to the initial placement of the initial delay values.

4. (new) The automated method of claim 2 further comprising:

adjusting the initial delay values of the cells if necessary to meet predetermined timing constraints.

5. (new) The automated method of claim 4 further comprising:

attempting to determine a size or area of the cells that will approximately maintain the adjusted delay values.

6. (new) The automated method of claim 3 further comprising:

after determining the initial size or area of the cells, attempting to further adjust the size or area of the cells in order to approximately maintain the delay values.

7. (new) The automated method of claim 2 further comprising:
routing the digital circuit to generate the integrated circuit layout using a finalized size or area of the selected plurality of cells.
8. (new) The automated method of claim 2 wherein the initial delay values are determined using gain.
9. (new) The automated method of claim 2 wherein the initial delay values are determined using the theory of logical effort.
10. (new) The automated method of claim 2 wherein the initial delay values are determined by finding the preferred gain of the cells.
11. (new) The automated method of claim 10 wherein the preferred gain of the cells is determined using a continuous buffering assumption.
12. (new) The automated method of claim 2 wherein the initial delay values are determined during library analysis.
13. (new) The automated method of claim 2 wherein the initial delay values are determined using the typical load of the cells.
14. (new) The automated method of claim 13 wherein the typical load is determined based on gain considerations.
15. (new) The automated method of claim 2 wherein the size or area of the cells is variable and not fixed at the time the cells are selected.

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